4. A method according to Claim 3, wherein said dedimethylaminotetracycline is selected from the group consisting of 4-dedimethylaminotetracycline, 4-dedimethylamino-5-oxytetracycline, 4-dedimethylamino-7-chlorotetracycline, 4-hydroxy-4-dedimethylaminotetracycline, 5a,6-anhydro-4-hydroxy-4-dedimethylaminotetracycline, 6 ∝ -deoxy-5-hydroxy-4-dedimethylaminotetracycline, 6-demethyl-6-deoxy-4-dedimethylaminotetracycline, 4-dedimethylamino-12a-deoxytetracycline, 12∝ -deoxy-4-deoxy-4-dedimethylaminotetracycline, 12a, 4 ∝ -anhydro-4-dedimethylaminotetracycline, 7-dimethylamino-6-demethyl-6-deoxy-4-dedimethylaminotetracycline, 5-hydroxy-6- ∝ -deoxy-4-dedimethylaminotetracycline, 4-dedimethylamino-12 ∝ -deoxyanhydrotetracycline and 4-dedimethylamino-11-hydroxy-12a-deoxytetracycline.

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10. (Amended) A method according to Claim 1, wherein said tetracycline derivative is doxycycline.

11. A method according to Claim 1, wherein said tetracycline derivative is administered systemically.

12. A method according to Claim 11, wherein said tetracycline derivative is administered systemically by a controlled release delivery system.

13. A method according to Claim 1, wherein said tetracycline derivative is administered orally.

14. A method according to Claim 1, wherein said tetracycline derivative is administered topically.

18. A method of treating cataract formation in a mammal comprising administering to the mammal an effective amount of a tetracycline derivative.

19. A method according to Claim 18, wherein said tetracycline derivative is a non-antimicrobial tetracycline.

20. A method according to Claim 18, wherein said tetracycline derivative is a dedimethylaminotetracycline.

21. A method according to Claim 20, wherein said dedimethylaminotetracycline is selected from the group consisting of 4-dedimethylaminotetracycline, 4-dedimethylamino-5-oxytetracycline, 4-dedimethylamino-7-chlorotetracycline, 4-hydroxy-4-dedimethylaminotetracycline, 5a,6-anhydro-4-hydroxy-4-dedimethylaminotetracycline, 6 ∝ -deoxy-5-hydroxy-4-dedimethylaminotetracycline, 6-demethyl-6-deoxy-4-dedimethylaminotetracycline, 4-dedimethylamino-12a-deoxytetracycline, 12∝ -deoxy-4-deoxy-4-dedimethylaminotetracycline, 12a, 4 ∝ -anhydro-4-dedimethylaminotetracycline, 7-dimethylamino-6-demethyl-6-deoxy-4-dedimethylaminotetracycline, 5-hydroxy-6- ∝ -deoxy-4-dedimethylaminotetracycline, 4-dedimethylamino-12 ∝ -deoxyanhydrotetracycline and 4-dedimethylamino-11-hydroxy-12a-deoxytetracycline.

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27. (Amended) A method according to Claim 18, wherein said tetracycline derivative is doxycycline.

28. A method according to Claim 18, wherein said tetracycline derivative is administered systemically.

29. A method according to Claim 28, wherein said tetracycline derivative is administered systemically by a controlled release delivery system.